



Alaskan Way Viaduct and Seawall Replacement Project

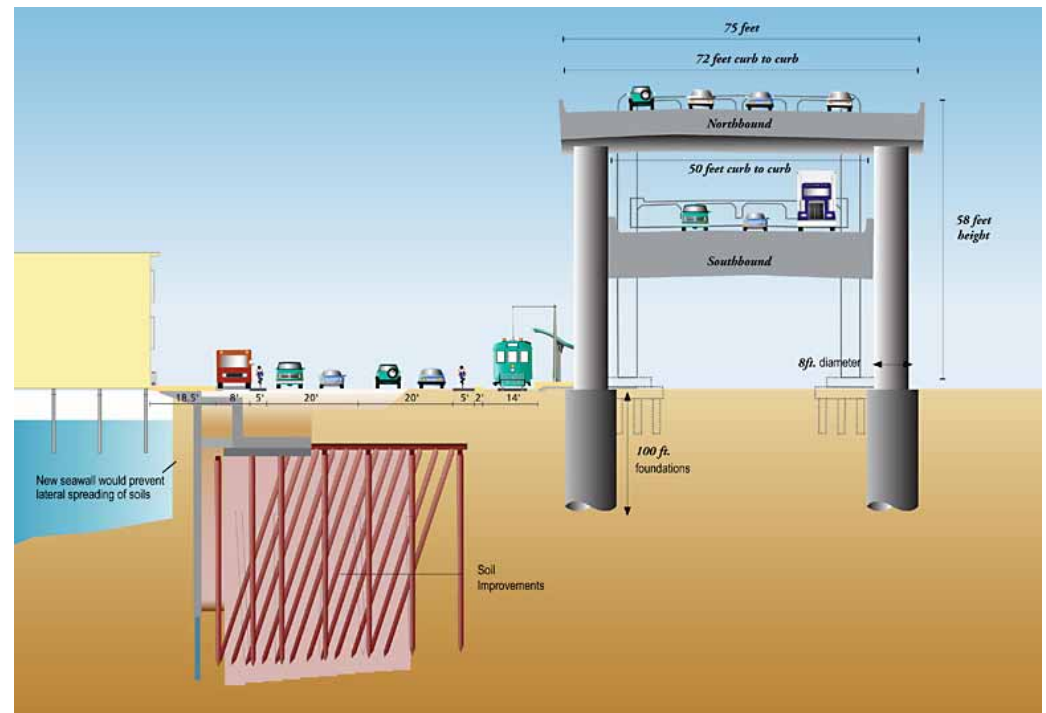
Seattle City Council Transportation Committee

August 8, 2006



Why Look at Different Structures?

If we build another elevated structure, how can we make it the best structure possible?





What Do We Know Today?

- Most promising structure types
- Location of new structure on waterfront, including span lengths and column locations
- Location of surface Alaskan Way on waterfront
- Connection to Battery Street Tunnel and south end ramps



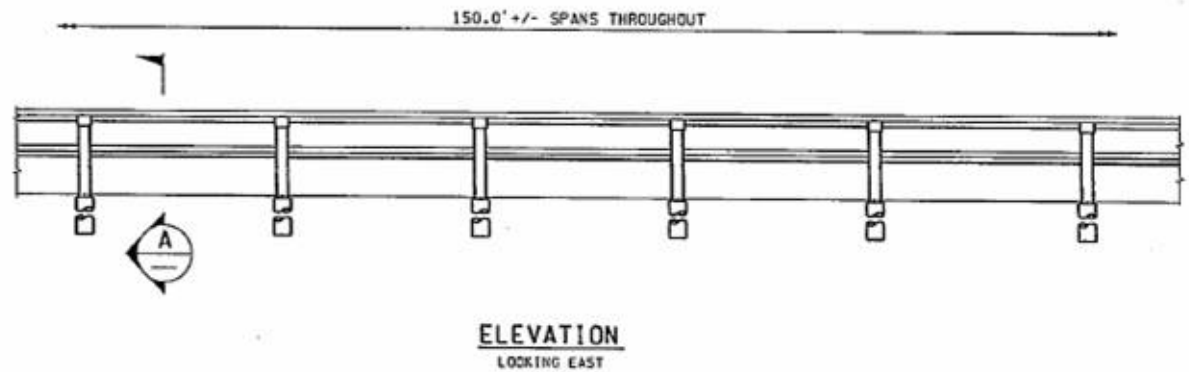
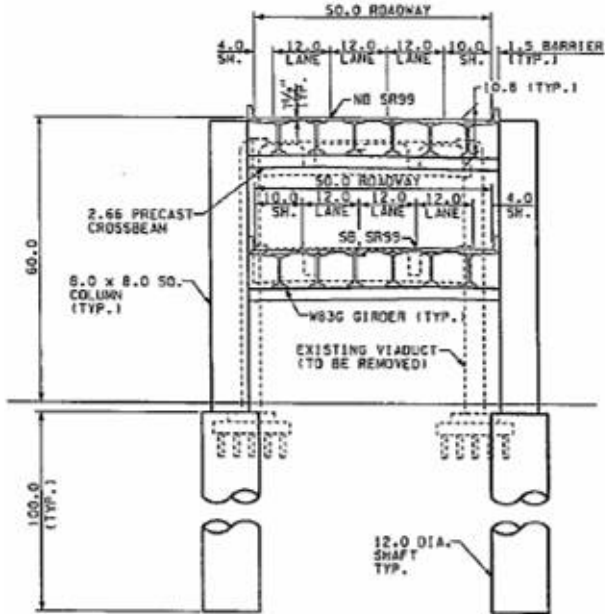


Elevated Structure Options

- | |
|--|
| 1. Prestressed Concrete Girders |
| 2. Steel Box Girders |
| 3. Cable Stayed (single tower) |
| 4. Cable Stayed (double towers) |
| 5. Cable Stayed with Steel Truss (double towers) |
| 6. Steel Truss with Steel Box Approaches |
| 7. Concrete Segmental Box Girders |
| 8. Extrados Cable Stayed/Concrete Segmental |
| 9. Prestressed Concrete Girders with Park Lid |

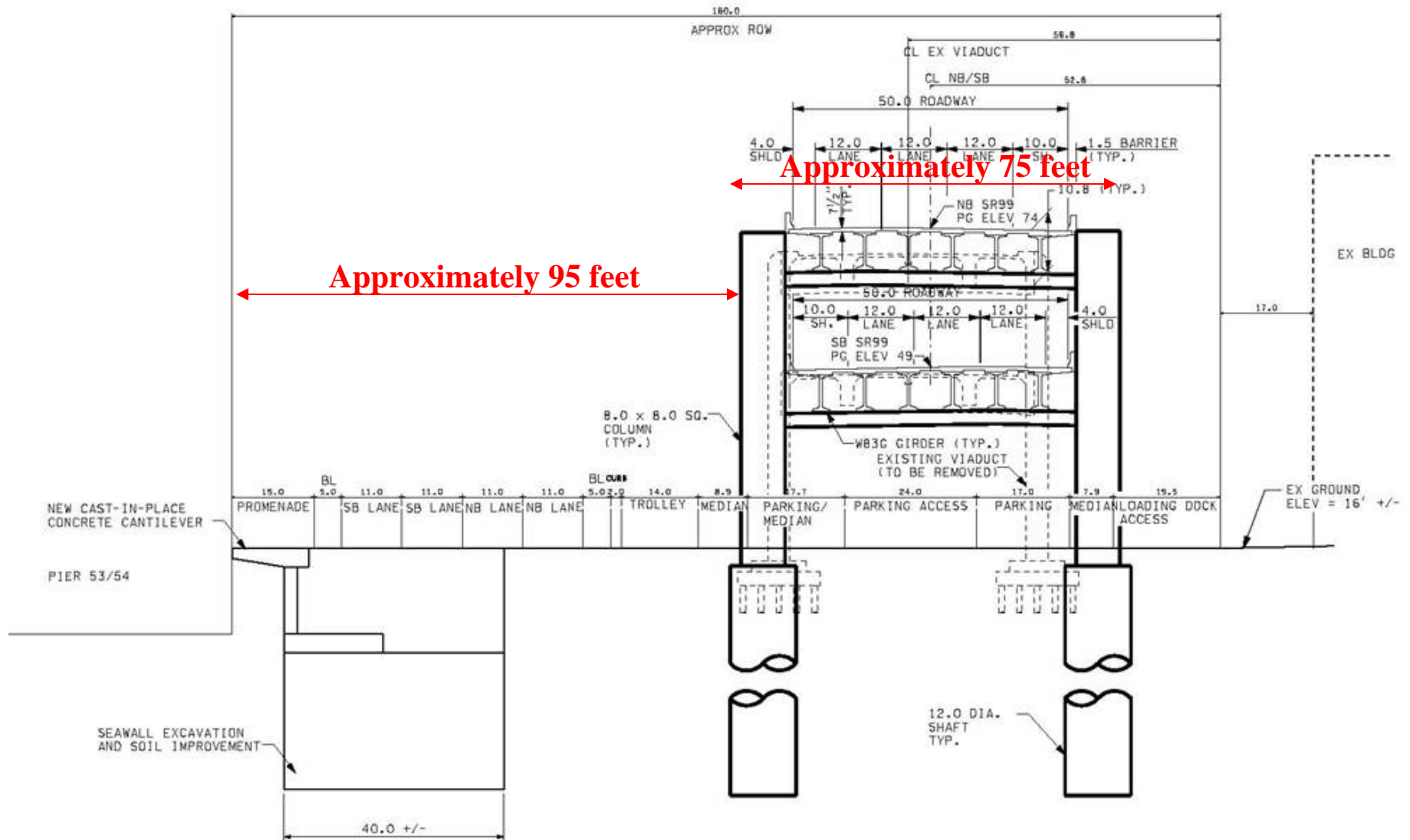


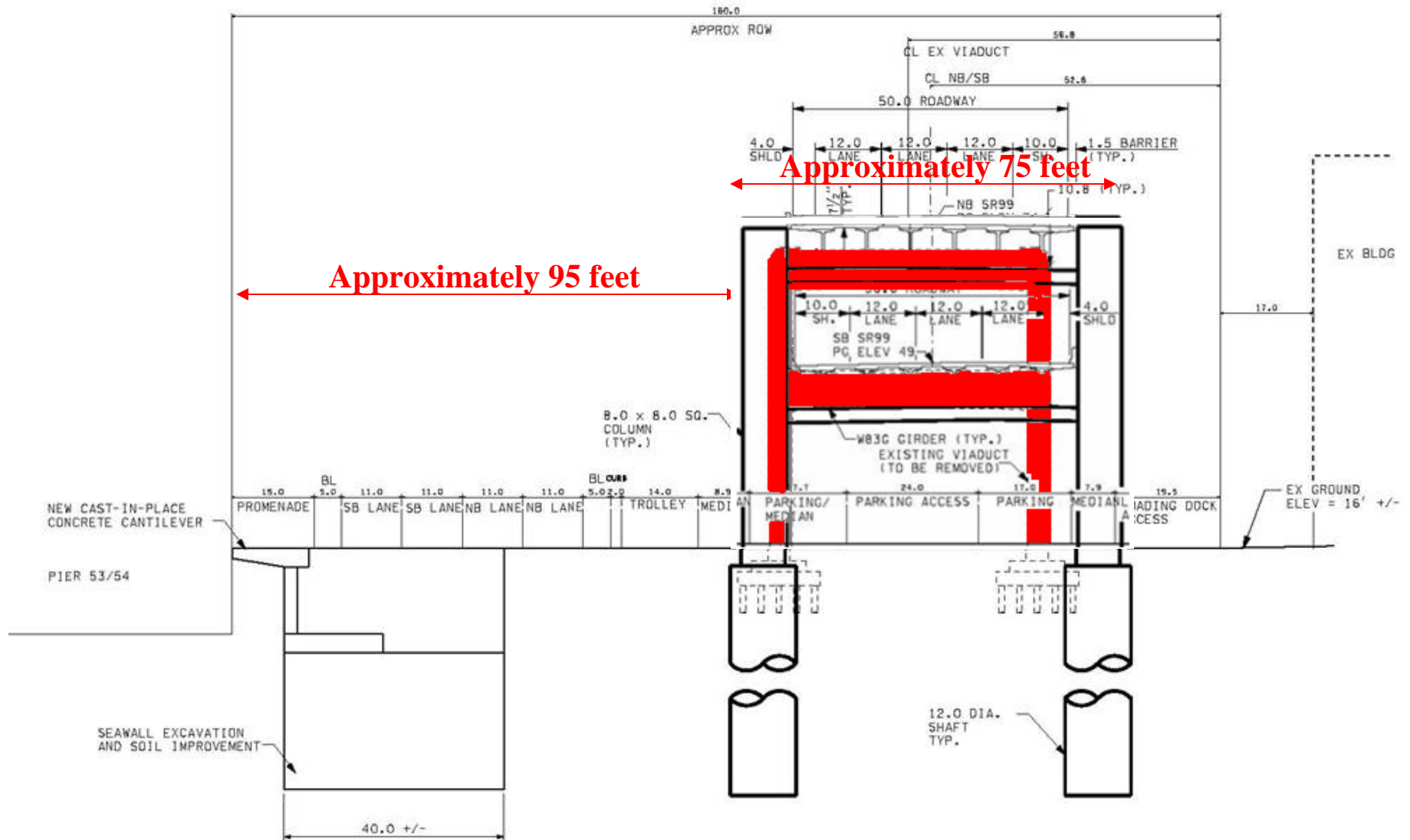
Option 1: Concrete Structure





Option 1 at Madison Street





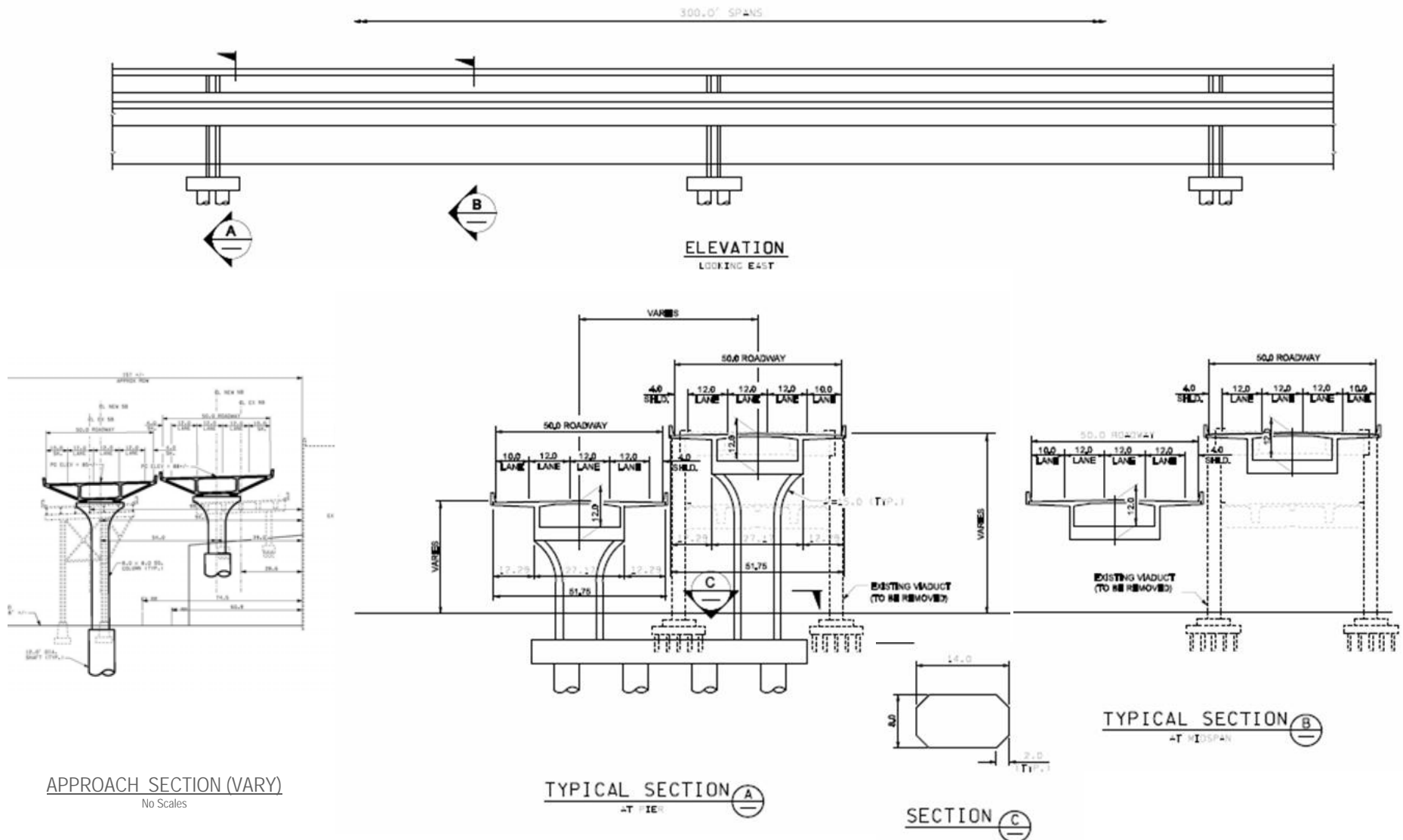
Option 1: Concrete Structure

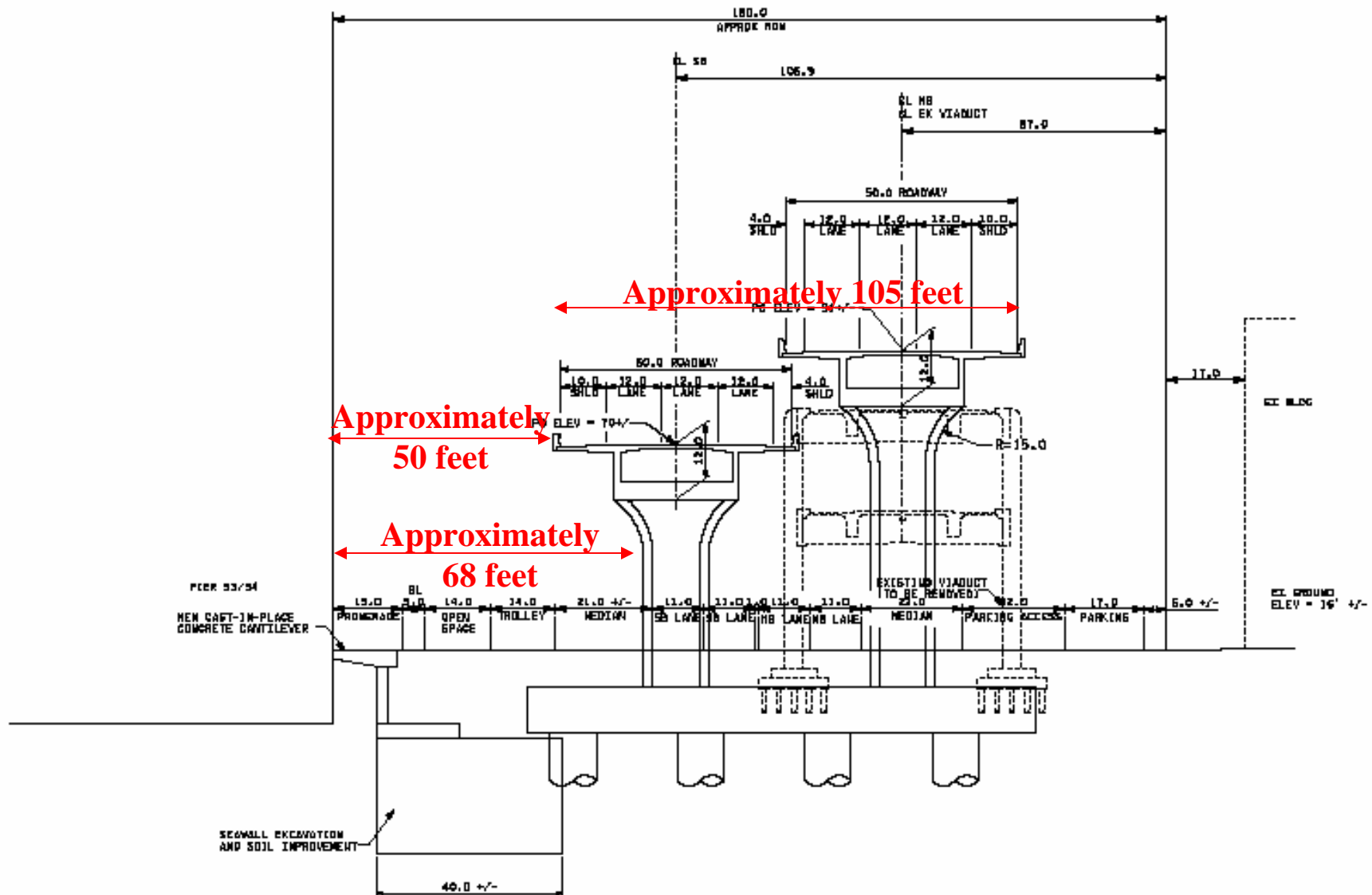


Preliminary Concept



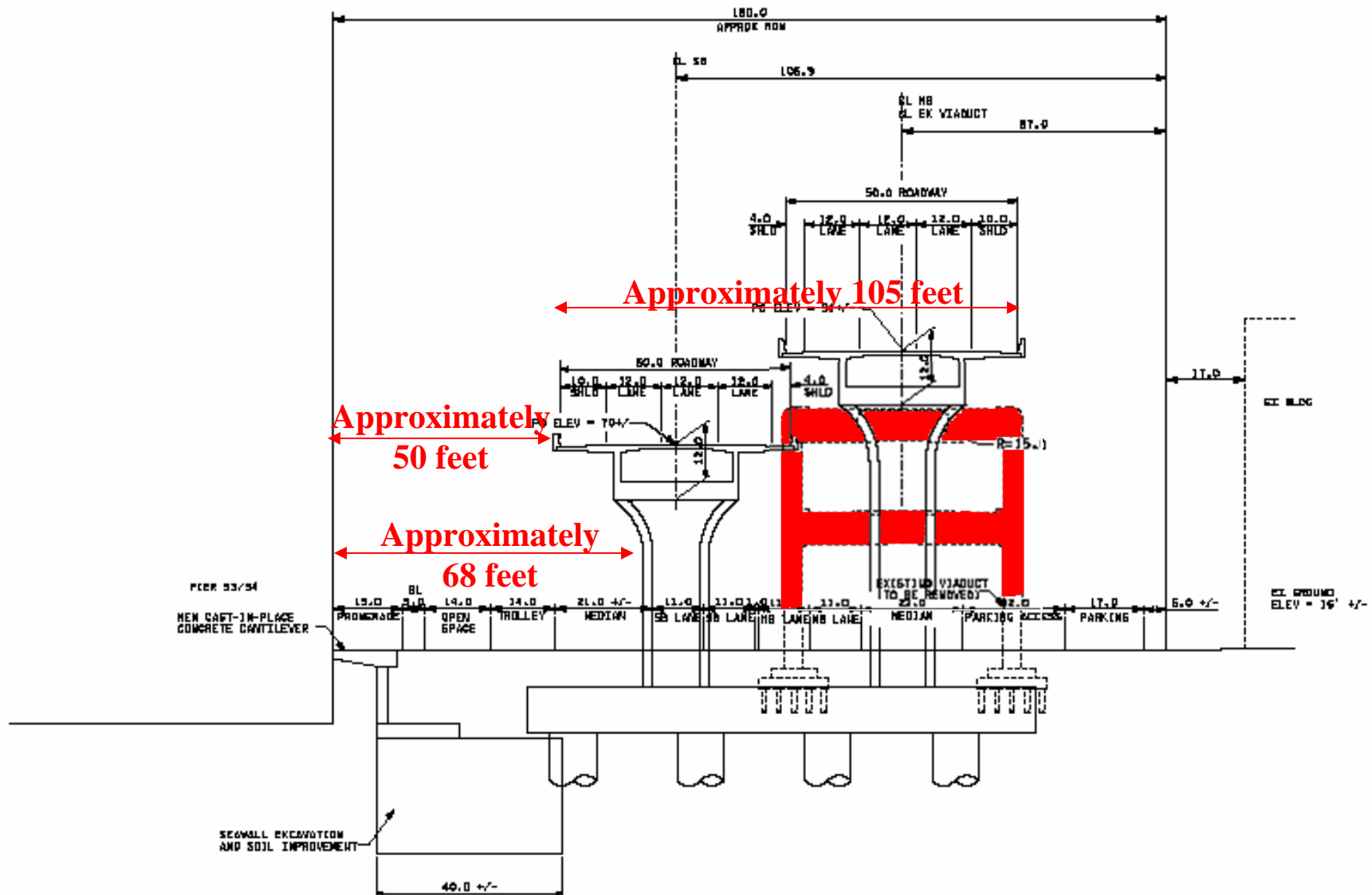
Option 7: Concrete Segmental Box Girders







Option 7 at Madison Street



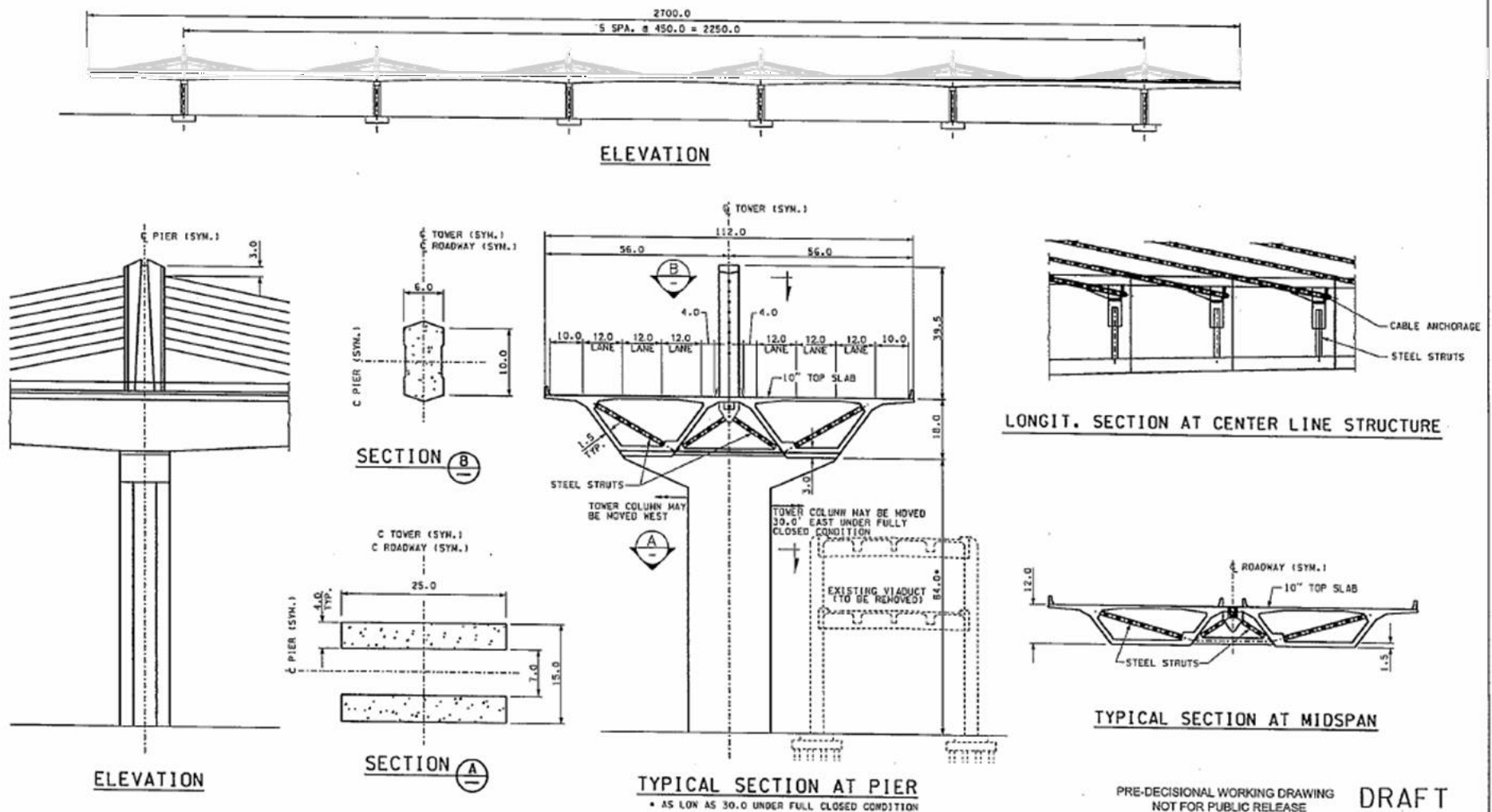
Option 7: Concrete Segmental Box Girders



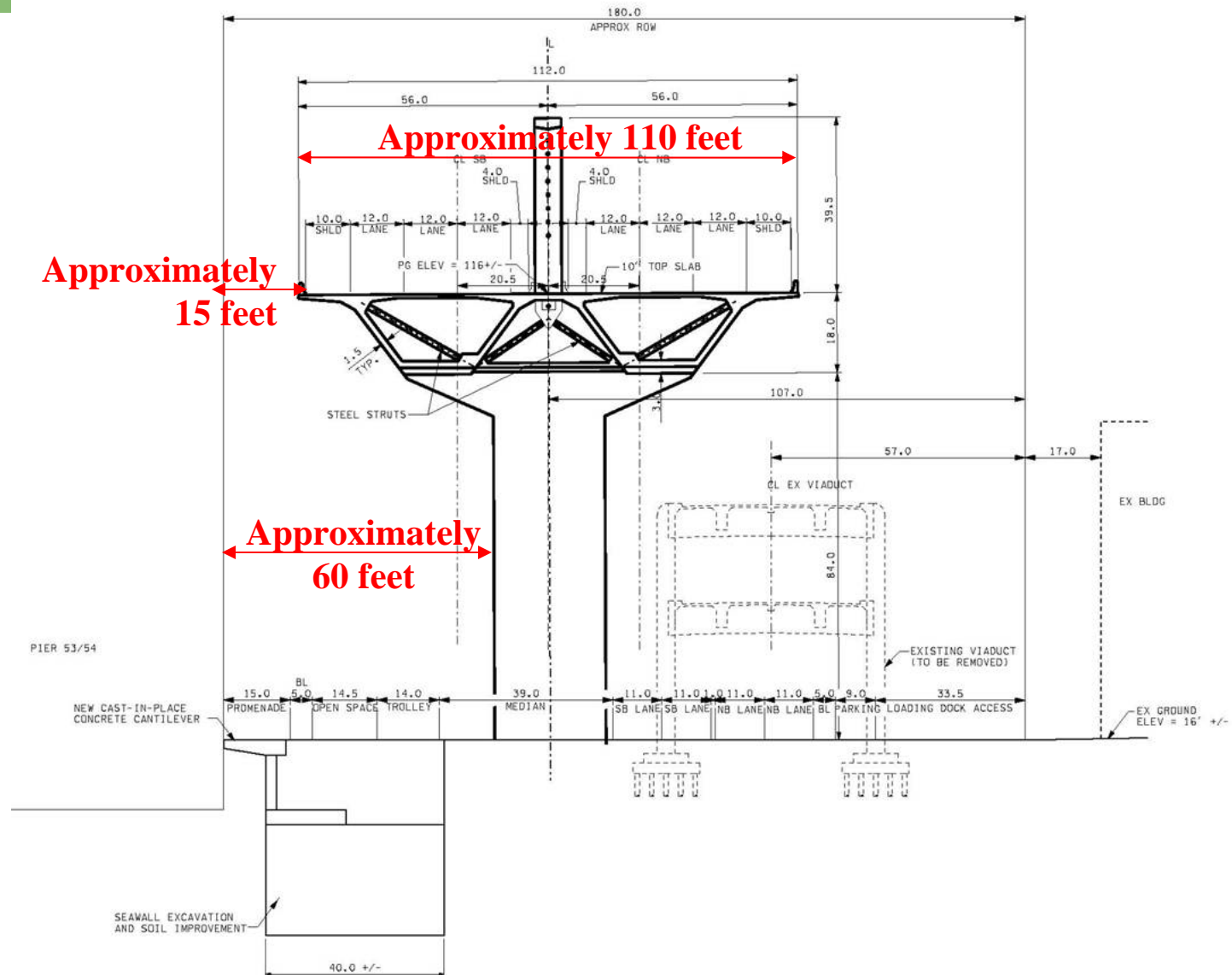
Preliminary Concept

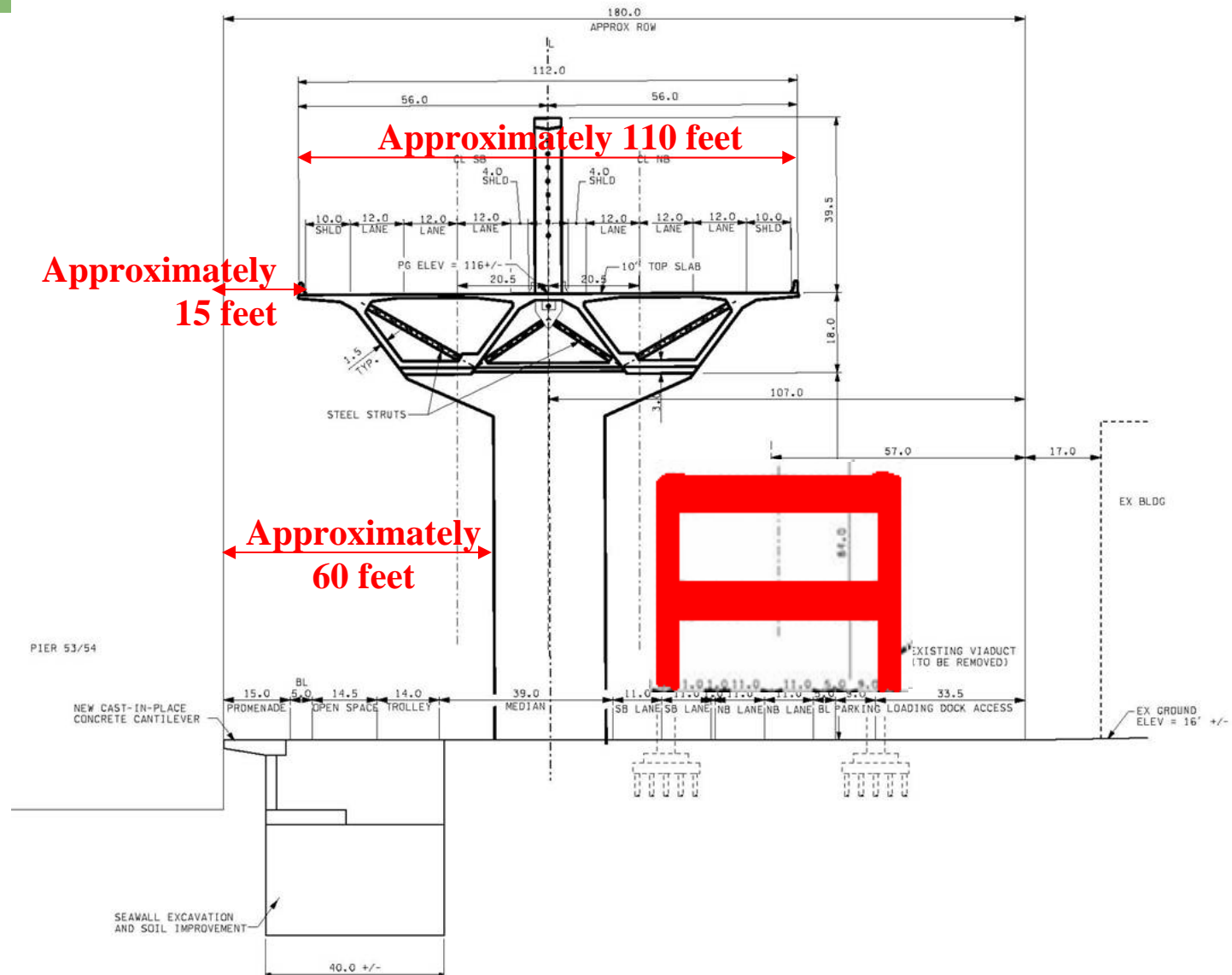


Option 8: Extrados Cable Stayed/Concrete Segmental



Option 8 at Madison Street





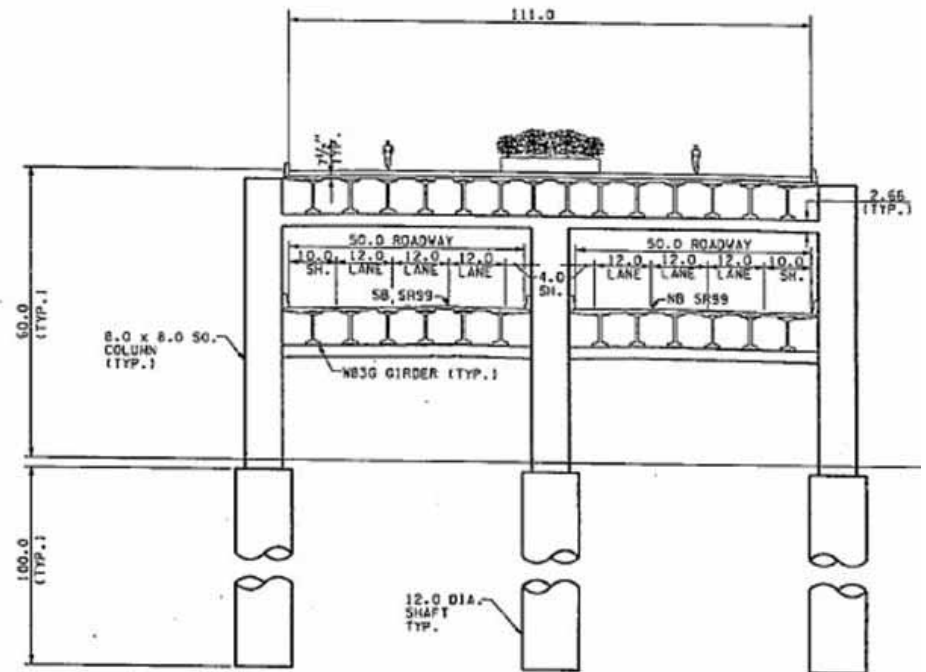
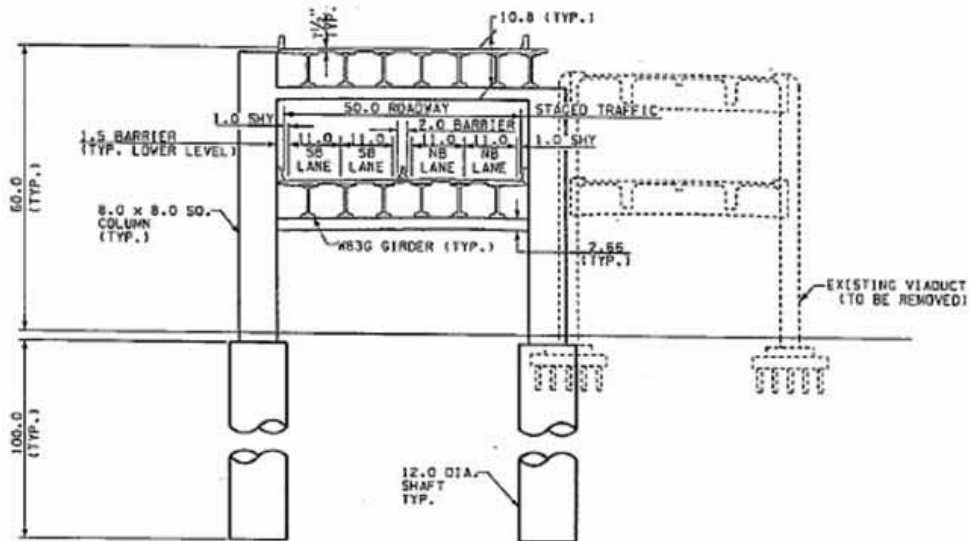
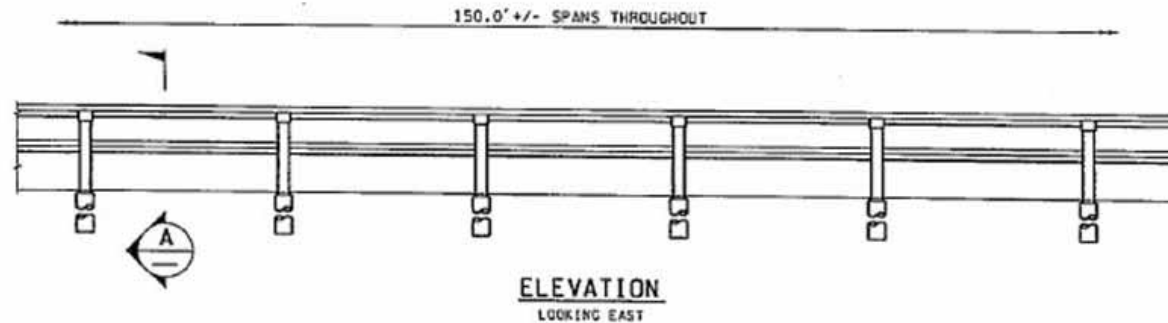
Option 8: Extrados Cable Stayed/Concrete Segmental



Preliminary Concept

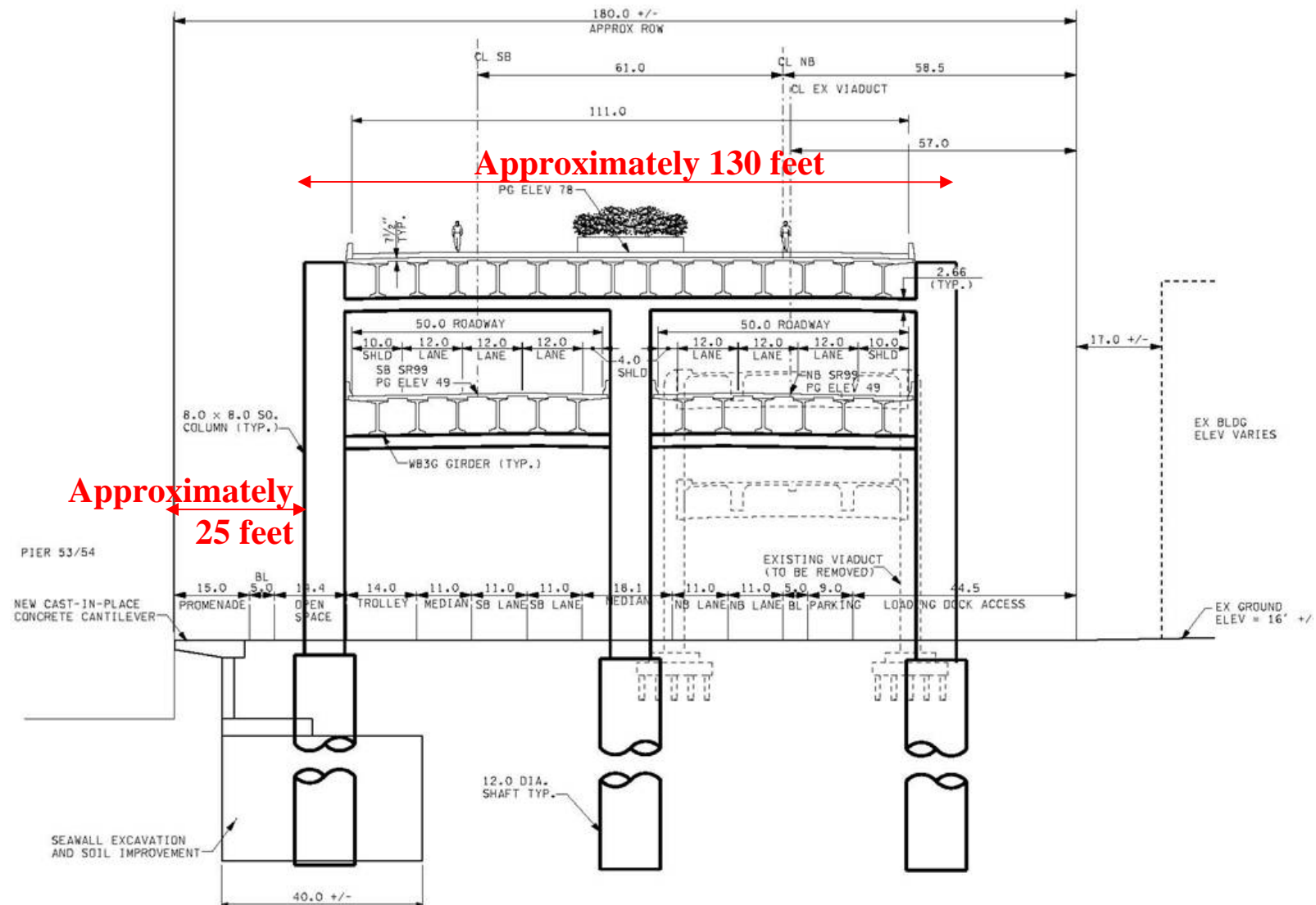


Option 9: Concrete Girders with Park Lid



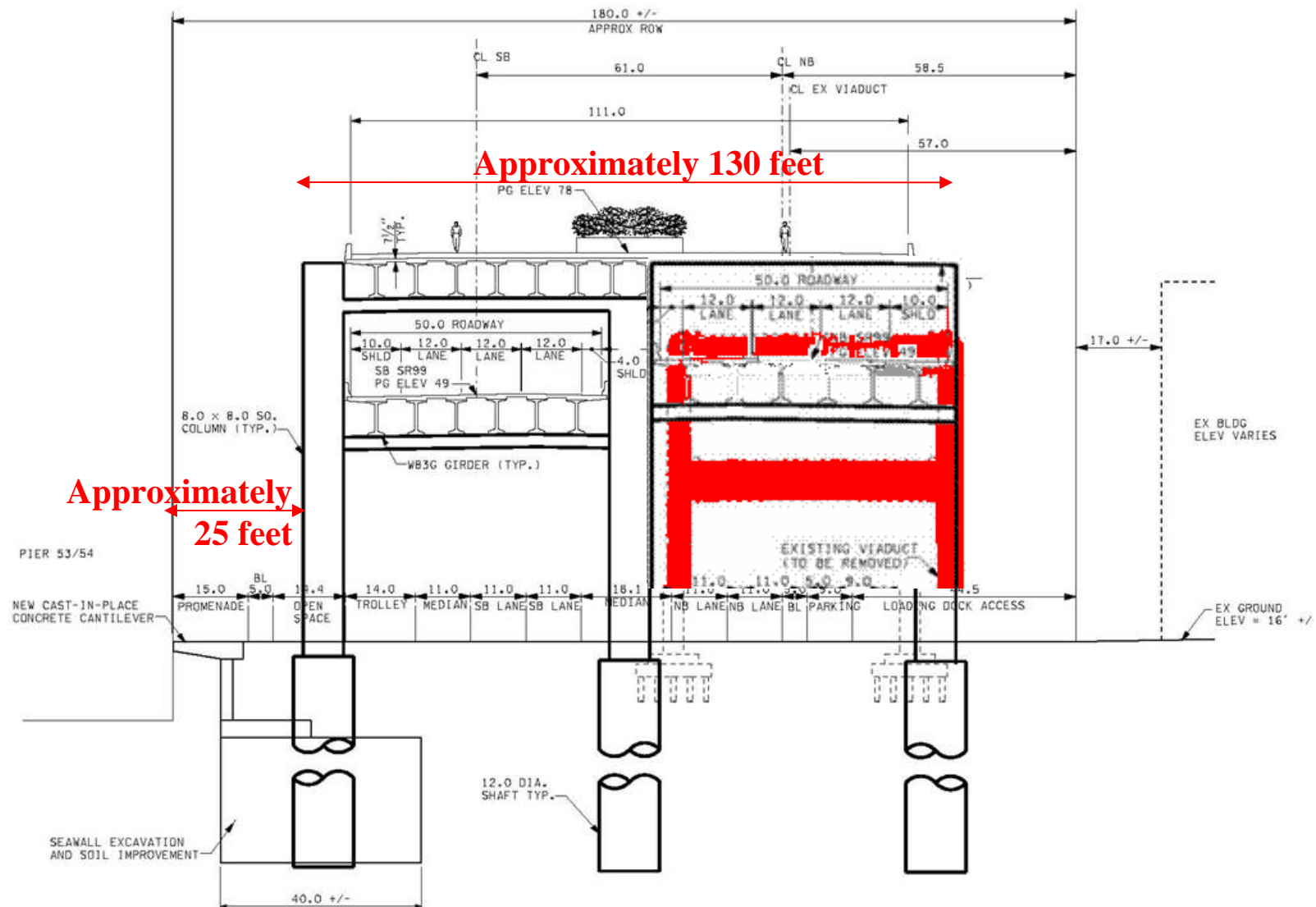


Option 9 at Madison Street





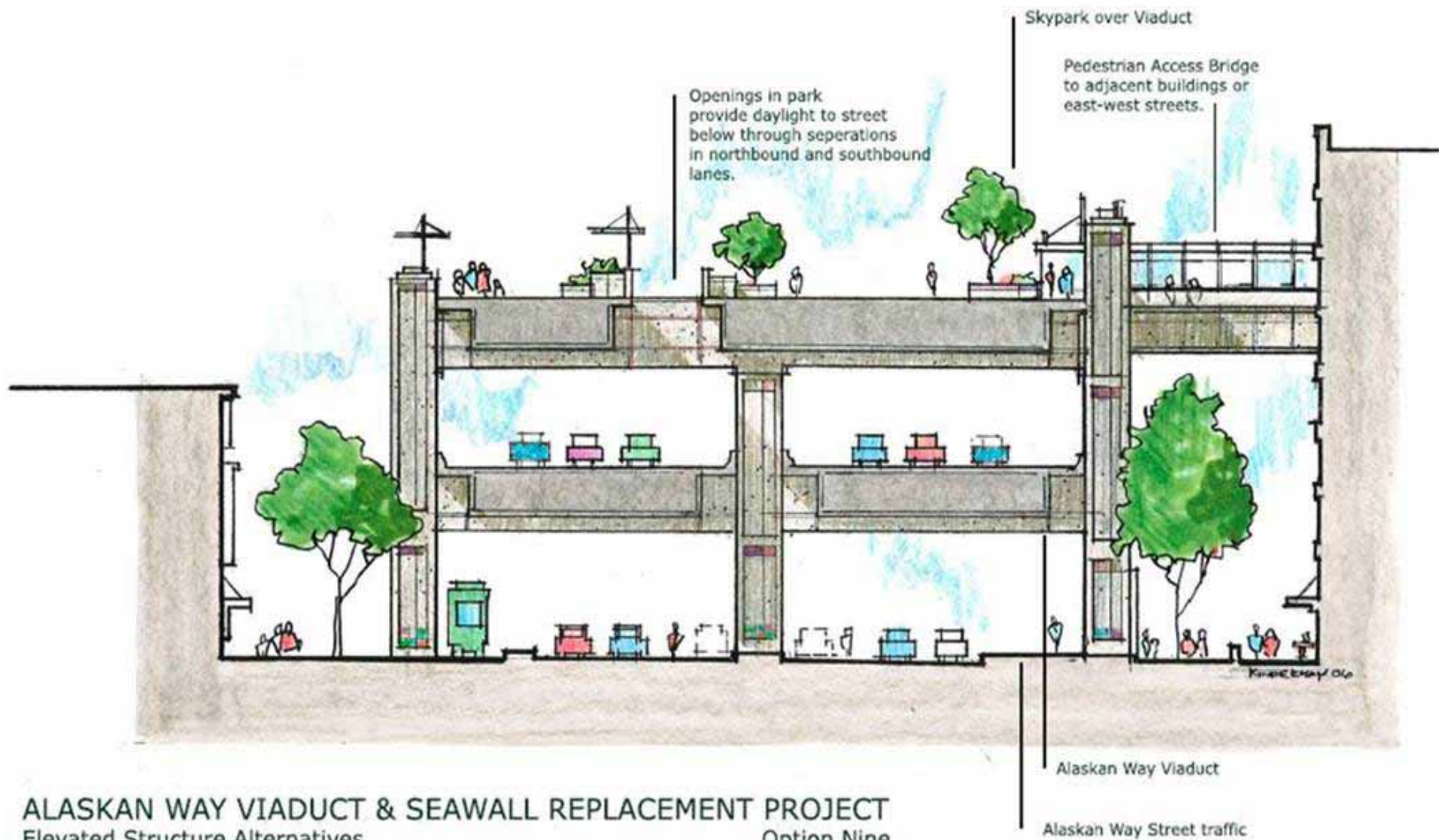
Option 9 at Madison Street



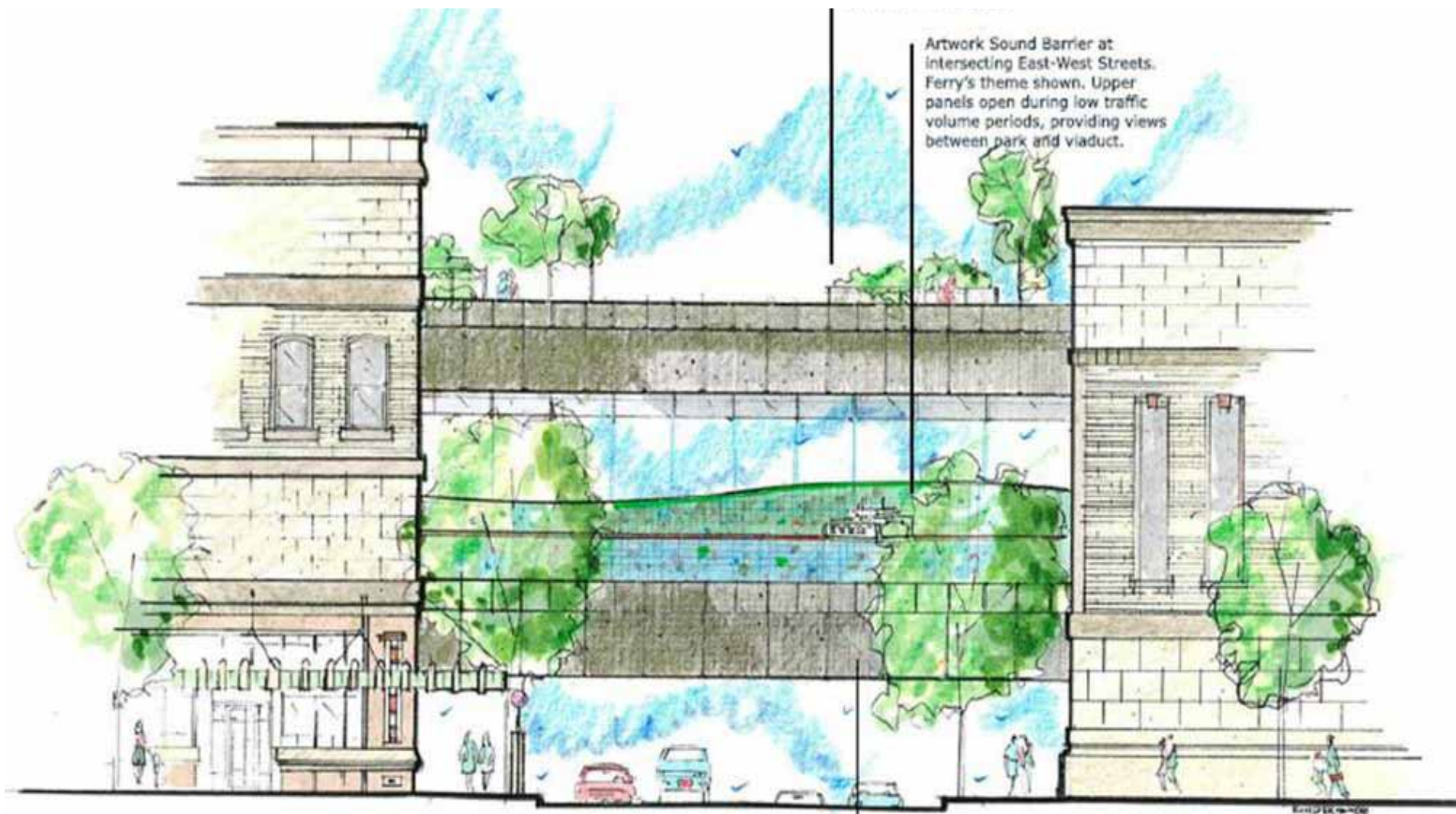
Option 9: Concrete Girders with Park Lid



Preliminary Concept



ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
 Elevated Structure Alternatives
 Looking North viewed from the Central Waterfront. Option Nine



ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
Elevated Structure Alternatives
Looking West down Marion Street

Option Nine
Viewed from First Avenue

Alaskan Way Viaduct approximately
twenty feet above waterfront. Seen
at elevation shown from 1st Avenue.

Viaduct Today



Preliminary Concept

Option 1: Concrete Structure



Preliminary Concept

Viaduct Today



Preliminary Concept

Option 7: Concrete Segmental Box Girders



Preliminary Concept

Viaduct Today



Preliminary Concept

Option 8: Extrados Cable Stayed/Concrete Segmental



Preliminary Concept

Viaduct Today



Preliminary Concept

Option 9: Concrete Girders with Park Lid



Preliminary Concept



Next Steps

- Develop cost estimates
- Develop designs for connections to Battery Street Tunnel and south end interchange
- Confirm existing construction plans

